

REMARKS

Claims 1-3, 5-18, 20, 63-73 and 75-89 are currently pending. Claims 1, 5, 12, 71, 75 and 82 have been amended, without acquiescence or prejudice to pursue the original claims in a related application. Claims 4 and 74 have been cancelled, without acquiescence or prejudice to pursue in a related application. No new matter has been added.

Previously Presented Claims

In the amendment and response to restriction requirement dated September 26, 2006, claims 71-89 were presented as new claims. The Action did not address these claims. However, these claims are considered allowable for at least the reasons set forth below.

Allowable Subject Matter

Claims 63-70 are allowed.

In response, Applicants formally recognize the allowance of these claims.

Claims 4-18 are allowable if rewritten in independent form to include the limitations of the base claim and any intervening claims.

In response, independent claim 1 has been amended to include subject matter related to allowable claim 4. Similarly, previously presented independent claim 71 has been amended to include subject matter related to claim 74.

In view of this discussion, all currently pending claims presented herein are considered allowable, and such allowance is respectfully requested.

Claim Rejections Under 35 U.S.C. §102

Claims 1-3 and 20 were rejected under 35 U.S.C. §102(e) as unpatentable over Martin et al. (U.S. Patent No. 6,931,611).

In response, these rejections are moot in view of the discussion presented above since, as noted above, claim 1 has been amended to include subject matter related to allowable claim 4.

Moreover, Applicants note that the cited Martin reference fails to disclose each and every limitation of the present claims.

Martin is specifically directed to verifying that an implementation design is functionally equivalent to a predetermined functionality of a reference design, where the reference and

implementation designs correspond to an integrated circuit design. According to Martin, an expected result from the reference design is compared to an actual result of the implementation design to determine a set of failure conditions.

The Action purports that Martin, in col. 2, lines 7-21, discloses, “reusing at least part of the first solution to the first equivalence checking problem for a second equivalence checking problem”, in a manner as recited in claim 1. However, in this passage, Martin explicitly discloses comparing one design representation, such as the reference model, with another representation of the same design, such as the implementation model. To the extent that Martin compares two different representations of the same design as a first comparison problem, Martin fails to reuse any part of a solution from the first comparison problem for checking a second comparison problem. Clearly, Martin fails to disclose reusing any part of a first solution to a first equivalence checking problem for a second equivalence checking problem, in a manner as claimed by the Applicants in the present claims.

In contrast to Martin, independent claim 1 recites, “solving at least a first equivalence checking problem, storing at least a first solution to at least the first equivalence checking problem, and reusing at least part of the first solution to the first equivalence checking problem for a second equivalence checking problem based upon information related to the first solution, wherein the information related to the first solution comprises one or more algorithm traces or one or more problem signatures”. Martin does not disclose these features.

For at least these reasons, it is respectfully submitted that independent claims 1 and 71 are allowable over the cited Martin reference.

Since the remaining claims depend from independent claims 1 and 71, respectively, these claims are also patentable over the cited Martin reference.

CONCLUSION

Based on the foregoing, all claims are believed allowable, and an allowance of the claims is respectfully requested. If the Examiner has any questions or comments, the Examiner is respectfully requested to contact the undersigned at the number listed below.

The Commissioner is authorized to charge any fees due in connection with the filing of this document to Bingham McCutchen's Deposit Account No. 50-2518, referencing billing number **7038422001**. The Commissioner is authorized to credit any overpayment or to charge any underpayment to Bingham McCutchen's Deposit Account No. 50-2518, referencing billing number **7038422001**.

Respectfully submitted,
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